TOPCON

Precision Agriculture Solutions

Driving to become a global leader with technology made easy

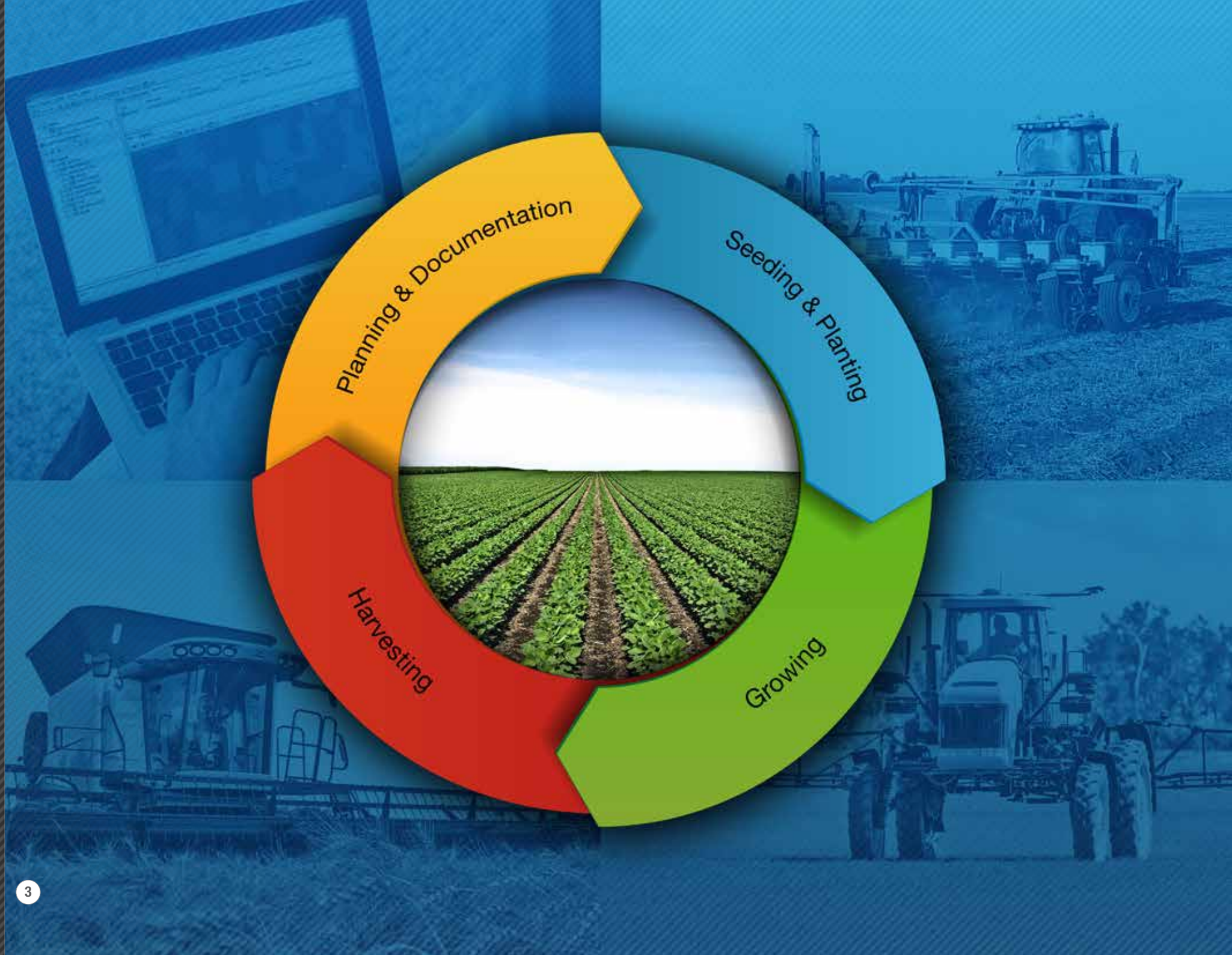
Topcon drives farm profitability through technology made easy. That means serving agribusinesses, professional farmers and agricultural contractors with leading edge, innovative technology that is easy-to-learn and easy-to-use. Topcon products offer superior value through improved operational efficiency and input cost reduction.

Solutions for farmers worldwide

Topcon understands the pressures facing farmers worldwide to produce more with less, to maximize efficiency, to operate more profitably, while protecting the environment and our precious natural resources.

Topcon solutions make a difference. With more than 25 years invested in providing advanced technology products designed to improve farm efficiency worldwide, Topcon advanced precision solutions can increase your productivity and profitability throughout the farming cycle.

This solutions catalog shows the full Topcon Precision Agriculture portfolio: Advanced technology for first-rate guidance, autosteering, GNSS positioning, variable rate control, auto section control, crop monitoring, data management, water conservation and software solutions.


Planning & Documentation
Seeding & Planting
Growing
Harvesting

Full Season of Solutions

The endless pursuit of precision

Topcon products bring efficiency and productivity to virtually every phase of the farming operation. Finding solutions for all seasons, all crops, terrains and vehicles — from tractors to applicators to harvesters in the endless pursuit of precision.

Guidance
Mapping
Auto Steering
Planter Control
Seeder Control
Sprayer Control
Spreader Control
Variable Rate Control
Auto Section Control
Crop Canopy Sensing
Boom Leveling
Water Conservation
Land Forming
Data Management

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CONTROL MODE
BOUNDARY LIMIT
Field Boundary
ASC ON
COVERAGE AREA
5.39 ha
BOUNDARY AREA
9.02 ha
AREA REMAINING
3.62 ha
DISTANCE TRAVELLED
2.4 km
TOPCON

Topcon X Family Consoles

More choices in precision means better decisions

Full-color touchscreen displays take precision machine control to new levels of performance and ease-of-use with Horizon software.

The **Topcon X Family of multi-touch guidance consoles** brings innovative, industry-leading performance and ease-of-use to virtually any size farming operation that is seeking to use precision to improve operational efficiency and reduce input costs.

Horizon Software

Horizon software is the user's portal to easily interface with the X Family of Topcon touchscreen consoles. It has been developed to allow users to customize their views, so the software becomes intuitive to learn and operate.

Virtual Display Controller (VDC)

The VDC is a programmable user interface (UI) that makes repitive tasks as simple as a button push. The VDC can mount on the armrest near the operator for easy access. It is designed to avoid the need to reach for the screen in rugged field conditions.

X30 Console

12.1” Touchscreen

The X30 has already earned a reputation as the easiest-to-use console on the market, while its all-in-one design reduces cab clutter.

This premium-featured console offers an intuitive user interface with an icon-based, user-definable, multi-touch screen. It offers mini-view, drag-and-drop info windows, user-definable dashboard, and interactive keypads. It can simultaneously display 5 different functions on-screen, while providing a wealth of control and display options that give feedback from multiple points throughout your equipment. Because it is designed with Topcon modularity, it is easy to upgrade as your farming needs grow.

- **All-in-one system**
- **Full range of manual and autoguidance patterns**
- **Simple, intuitive, icon-based, user-definable interface**
- **Multi-touch screen with mini-view drag-and-drop info windows**
- **Variable rate control (VRC) for up to 8 products**
- **30-section auto section control (ASC) of sprayer, spreader, or planter**
- **Up to 32-section ASC with ISO task controller (TC) interface**
- **Full mapping and data management capability**
- **Bright, sunlight readable display**
- **Full ISO universal terminal (UT) and ISO TC embedded**
- **Exportable boundary, coverage, logging and as-applied maps**
- **Easy-to-learn, easy-to-use, easy-to-upgrade as needs grow**

AgCam interface for X30 Consoles

Get high-quality on-screen video in any light condition, day or night, displaying up to four USB camera views at one time on the X30 touchscreen console. Solid-state, rugged and waterproof, with strong magnetic mounts, AgCams are easily positioned or moved among vehicles or implements.

X25 Console

8” Touchscreen

This powerful, new color touchscreen is designed to offer full-featured precision machine control and high-accuracy autosteering for the more price conscious farmer. The X25 is available with feature packages that provide flexibility for virtually any size operation or smaller cab environments.

The X25 features the same farmer-friendly on-screen navigation menus, drag-and-drop mini-views and user configurable dashboard as its bigger sibling, the X30. It can simultaneously display 3 separate functions on-screen and is rugged, reliable, easy-to-use, and offers ISO compatibility.

It allows adoption of precision farming practices into more operations to lower input costs, increase machine automation, and enable higher operational efficiency.

- **Full range of manual and autoguidance patterns**
- **Simple, intuitive, icon-based, user-definable interface**
- **Multi-touch screen with mini-view drag-and-drop info windows**
- **Easy setup on leading market vehicles**
- **Full mapping and data management capability**
- **Bright, sunlight-readable display**
- **Full ISO UT and ISO TC embedded**
- **Basic and advanced feature packages for any size operation**
- **Exportable boundary, coverage, logging and as-applied maps**
- **Easy-to-learn, easy-to-use, easy-to-upgrade as needs grow**

X14 Console

4.3” Touchscreen

Big performance in a small package aptly describes the X14 console.

Designed for entry-level guidance, the X14 offers the same Horizon software in a simple, easy-to-use format. A full color 3D touchscreen offers moving map guidance or autosteering, as well as a virtual on-screen lightbar.

Teamed with the Topcon SGR-1 GNSS receiver, the X14 offers manual guidance and coverage mapping. The SGR-1 receiver features Topcon TruPass™ advanced positioning technology for higher, more stable pass-to-pass accuracies in dynamic ag applications.

The X14 can also be paired with the Topcon AGI-4 receiver/steering controller which allows for easy upgrade. The AGI-4 provides industry-leading autosteering performance, while also offering industry-first ISO11783 compatibility.

Full-featured for its size, the X14 offers a modular design with on-screen navigation menus, a range of steering patterns, plus coverage mapping and return-to-point.

- **Full range of manual and autoguidance patterns**
- **Simple, intuitive, icon-based, user-definable interface**
- **Easy setup on leading market vehicles**
- **Bright, sunlight-readable display**
- **Easy-to-learn, easy-to-use, easy-to-upgrade as needs grow**

Topcon Console Comparison

	X30	X25	X14
Features			
Diagonal Screen Size	12.1" (31 cm)	8" (20.3 cm)	4.3" (10.9 cm)
3D Graphics	X	X	X
Touchscreen	X	X	X
Gestures/Slide Functionality	X	X	X
On-Screen Navigation Menus	X	X	X
Mini-views (widgets)	3	2	
User Configurable Dashboard	X	X	X
User Configurable Home Screens	X	X	
Sunlight Readable	X	X	X
Lightbar Compatible	Integrated	On-Screen	On-Screen
Modular (independent of GPS)	X	X	X
Steering Patterns			
AB Line	X	X	X
Identical Curve	X	X	X
Guide from Previous Coverage (GuideLock)	X	X	x
Pivot	X	X	X
Controlled Traffic	X*		
Working Modes			
ASC-10 Based Section Control	30	30*	10**
ISO-Based Section Control	32	32*	
Spreader Section Control	X	X	X
Sprayer	X	X	X
Compatible w/Boom Leveling via ISO	ISO-UT / NORAC	ISO-UT / NORAC	
Spinner/Spreader	X	X	
Straight Rate Product Control	8	4*	1**
Variable Rate Product Control	8	4*	
Topcon Air Seeder Control	X		
Air Seeder Downforce Control	X		
Row Crop Planter Interface	ISO-UT / ISO-TC	ISO-UT / ISO TC*	
Water Conservation and Landforming	X		

	X30	X25	X14
Mapping and Documentation			
Coverage	X	X	X
Implement Depth for Spreaders/Seeders	X	X	
PDF Job Report	X	X	X
As-Applied Data	X	X	X**
ISO TaskData Compatible	X	X	
HD Prescription Mapping Support	X	X	
Import/Export .shp file	X	X	X
Import/Export ISOXML	X	X	
Compatible with SGIS	X	X	X
Special Features			
Return-to-Point	X	X	X
Geo-locate Stored Fields	X	X	X
Job Setup Wizard	X	X	X
Import Implement Library	X	X	X
Remote Diagnostics	X		
USB Camera Compatibility	4		
Xlinks 3rd Party ECU Control	X*	X*	
Upgrade Options			
ASC-10 Rate and Section Control	X	X	
Apollo Application Controller ECU	X	X**	
ISO 11783 compliant ECU	X	X	
CropSpec Crop Canopy Sensors	X	X	
Receiver Compatibility			
SGR-1	X	X	X
AGI-3/AGI-4	X	X	X**
Accepts NMEA-0183	X	X	X
Simulated Radar Output	X	X	
Receiver GNSS and SBAS Filtering	TruPass	TruPass	TruPass
Steering Control (External)			
AGI-3	X	X	X**
AGI-4	X	X	X
AES-25 Compatibile	X	X	X

* Requires unlock codes which are additional cost options. ** Available in future release

MASSEY FERGUSON
WHITE

AGI-4 Receiver/ Steering Controller

The first truly modular ISO-compliant steering system

The AGI-4 comes standard with WAAS and EGNOS, but is easily upgradeable to 2cm accuracy with RTK radio options. Like all Topcon receivers, the AGI-4 offers GNSS multi-constellation satellite reception standard for unmatched accuracy in dynamic applications and terrain conditions.

The all-in-one, modular design incorporates the antenna, receiver and steering controller in a single component, offering unmatched upgradeability. AGI-4's ISO11783 compliant steering system features state-of-the-art inertial sensors and full terrain compensation for superior line acquisition and holding capabilities.

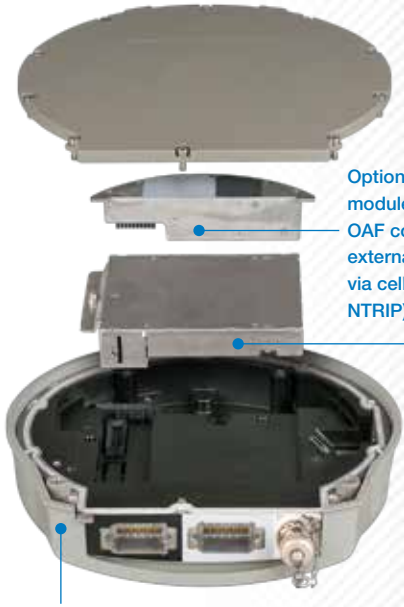
NTRIP capability allows tapping into existing reference networks via cellular connection (dependent of local availability) and uses existing data plans and infrastructure to minimize costs.

AGI-4's ISO11783 compatibility with other virtual terminals (VT) provides **drop-in and drive** convenience.

ACU-1

Direct Interface Steering

The ACU-1 is compatible with a wide range of "steer-ready" vehicles using high-speed CANbus communications.


Optional IMU module with OAF code allows external RTK via cell (CORS, NTRIP) or radio.
Standard AGI-4 offers WAAS, EGNOS, MSAS and Autonomous steering accuracies. Upgrade to OmniSTAR XP, HP and G2 with optional OAF code upload.
Optional RTK module and IMU module provide full RTK or NTRIP to +/- 2cm accuracy.

AGI-4

SGR-1 Receiver

Featuring Topcon TruPass™ advanced positioning technology

This compact, rugged receiver provides simultaneous processing of GPS and GLONASS signals with 32-channel high speed, universal tracking. The SGR-1 features Topcon TruPass advanced positioning technology for higher, more stable pass-to-pass accuracies in dynamic ag applications. The SGR-1 also outputs ground speed as simulated radar for improved slow speed operations such as seeding and spraying.

HiPer V Base Station

Compact GNSS positioning and RTK correction

The Topcon HiPer V GNSS base station is compatible with Topcon receivers from field crop autosteering and machine control to water conservation and landforming. HiPer V is a one-piece, cable-free unit that is rugged and compact featuring 226-channel Vanguard technology along with fenced antenna for advanced performance. GNSS (GPS + GLONASS) tracking provides the ultimate in accuracy while the one-piece, cable-free, battery operated HiPer V offers field proven design.

Guidance Patterns

Topcon steering controllers provide multiple guidance patterns that can be used in unlimited combinations. With any of the X Family Consoles, quickly set up and follow the most efficient, practical patterns for virtually any field shape.

What do you need to do?

Topcon offers the accuracy solutions to do it

Some crops require sub-inch accurate corrections to be produced with the most profitability, while others do not need such precision. Topcon offers correction accuracies from entry-level, sub-meter to high-accuracy, sub-inch.

All of the Topcon precision agriculture solutions start with GNSS accuracy. Topcon receivers are all standard with GNSS dual-constellation (GPS + GLONASS) satellite reception.

Topcon GNSS (Global Navigation Satellite System) also offers TruPass™ mode for improved autonomous pass-to-pass accuracies.

Whether you are after entry-level guidance or need sub-inch, repeatable RTK accuracy, Topcon modular-designed products let your GNSS technology grow as your operation expands.

ACCURACY TYPE	PASS-TO-PASS*	TYPICAL USES	GNSS	DISPLAYS
RTK	1-2” 2-5cm Repeatable	Strip Tillage Landforming/Leveling Topographic Mapping Listing/Planting Bedding/Ridging Cultivating	AGI-4	X30 X25 X14
CORS/NTRIP	1-12” 2-30cm	Listing Planting/Seeding Cultivating Bedding/Ridging	AGI-4	X30 X25 X14
OmniSTAR VBS XP/HP/G2 Dual Frequency (L1/L2)	3-4” 8-10cm	Tillage/Discing Mapping Spraying/Spreading Harvest Field Preparation	AGI-4	X30 X25 X14
DGPS WAAS EGNOS MSAS VBS L1 Only	4-12” 10-30cm	Tillage/Discing Mapping Spraying/Spreading Harvest Field Preparation	AGI-4 SGR-1	X30 X25 X14

*Pass-to-Pass accuracy based on 15 minute intervals.

AES-25 Electric Steering

Optional AES-25 provides hydraulic performance with electric convenience

For non-steer-ready vehicles, the AES-25 Electric Steering System fills the bill. Fast, flexible and extremely accurate, it is a superb alternative to common hydraulic steering. With a quiet, high-torque, direct-drive electric motor, the AES-25 provides silent operation while producing the most accurate electric steering in the world.

AES-25 brings best-in-class performance to a wide range of ag applications, including sprayers, windrowers and combines in addition to being the perfect solution to non-steer-ready tractors.

AES-25

- **Fast, accurate steering response**
- **Up to 2cm performance accuracy with RTK**
- **Full terrain compensation**
- **Reverse operation**
- **Convenient, easy installation**
- **Easily transferable across vehicles**
- **Compatible with X30, X25 and X14**

Machine Control Solutions

Variable Rate Control (VRC)

Single- or multiple-product variable rate control reduces input costs by applying seed and fertilizer precisely at the right rate, in the right place, at the right time.

The Topcon X30 and X25 consoles allow users to import prescription maps and generate real-time as-applied maps.

Operators have the ability to simultaneously control and record data for up to 8 products with the Topcon X30 console or 4 products with the X25 console.

Auto Section Control (ASC) and Liquid Rate Control

The Topcon ASC-10 auto section controller provides ten-section sprayer or spreader control and handles point rows or triangular-shaped fields. ASC-10 automatically switches sections on and off as you cross previously applied areas, move outside field boundaries, or cross exclusion zones. ASC-10 eliminates gaps and overlaps and reduces inputs while protecting your crops. Liquid Rate Control keeps application rates constant even with varied vehicle speeds. Additional ASC-10's can be stacked or connected to provide up to 30-section control.

ASC-10

Seeding

The market leader in air seeder control

Topcon has paired with leading air seeder manufacturers to provide the most innovative control on the market today.

Using the X30 console in an air seeder, operators get superior functionality, especially for those interested in using variable rate control in tandem with high-accuracy autosteering of very wide implements.

A few examples of advanced X30 seeder control solutions include: variable rate control of NH_3 or liquid fertilizer, auto on/off control based on coverage map, headland management that allows headlands to be seeded last, setup Wizards, inventory managers, job export including as-applied maps for each product, tank optimizers, customizable dashboard, and more.

The Topcon X30 becomes a true "hub" for complete functionality in a modern leading-edge seeding system.

Planting

ISO compatible planter control up to 32 rows

Topcon precision solutions for row crop planters are ISO-based and interface with a number of ISO compatible planters including White, DICKEY-john and Kinze. The Topcon planter interface also supports auto section control and variable rate control via ISO UT or ISO Universal Terminal.

Spraying

Variable rate and ISO based control of up to 32 sections

With Topcon ISO UT capability, the X30 and X25 consoles offer ISO-based section control of up to 32 sections; or up to 30 sections using ASC-10 based section control. Perform variable rate application from imported prescription maps or generate real-time as-applied maps. Boom level capability is also available via ISO UT compatibility with NORAC boom leveling systems.

NORAC Boom Leveling

Topcon offers compatibility with NORAC spray height control systems. The NORAC UC5 is the latest generation in height control and the first independent spray height control system to receive ISOBUS11783 certification.

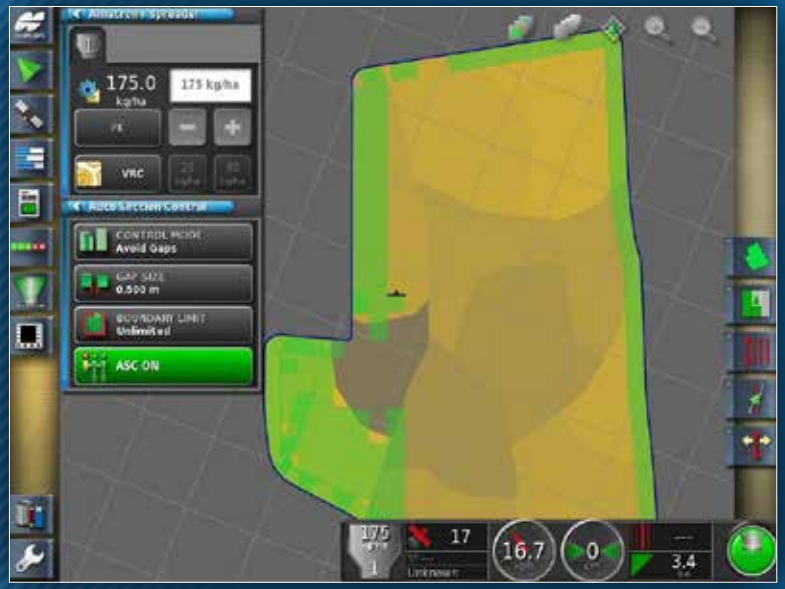
Spreading

Variable rate control of liquid or granular fertilizers

Variable rate capability accurately controls liquid or granular nitrogen and fertilizer application. Variable rate application can be performed from imported prescription maps or can generate real-time as-applied maps. Topcon is compatible with common spreader hydraulic systems and supports belt or actuator driven spreaders as well. Control or monitor up to two spinners or control multiple belts or split belt configurations with ASC, or auto section control using the ASC-10 controller.

Universal Terminal

Flexibility to operate many ISO compatible machines



ISOBUS allows different implements to connect to Topcon consoles and display implement functionality on the Universal Terminal screen. The X30 console Universal Terminal (UT), previously known as Virtual Terminal (VT), supports plug-and-play operation for direct control of major planter, seeder, spreader and sprayer controllers with industry standard ISO11783*. The X30 also supports ISO task control (TC) based rate control (RC) and section control (SC) for compatible ISO ECUs. Compatible ISO ECUs operate in parallel with the X30 ASC, allowing support for sprayers and planters with up to 32 sections. The X30 also provides the option of selecting ISO Ground or GPS NMEA2000 speed on the ISOBUS for implements without ground speed sensors.

*Topcon works closely with the AEF to ensure that systems using Topcon consoles and receivers are compliant with the ISOBUS standard, but Topcon is not responsible for incompatibility.

XLinks

Interface to Topcon X30 for ASC and VRC

XLinks allows the interface of an existing controller with the Topcon X30 console to provide auto section control (ASC) and variable rate control (VRC). XLinks provides VRC using Topcon's industry-leading CropSpec crop canopy sensor system and also offers recording of as-applied data.

XLinks provides a controller with basic functionality to maintain usability versus re-wiring the implement and installing a new control module. The X30 console provides these additional advanced features (ASC, VRC) by sending data over a serial link with XLinks.

Machine Control Options

IB-1 ISOBRIDGE

The IB-1 interface functions as a bridge from an existing Topcon seeder MDECU to ISOBUS Virtual Terminals (VT). Existing Topcon users of MDECUs can upgrade to the Topcon X30 console and Horizon Software.

Hydraulic Valve

This hydraulic valve option is for non-steer-ready vehicles in situations where an integrated steering solution is preferred. The valve is an aftermarket option for high-accuracy hydraulic steering and vehicle control that provides excellent performance in certain high- and low-speed operations.

722

Controlled Traffic Farming

Topcon X30 Optimal Lines produces controlled traffic farming with unmatched versatility

Originally created to reduce plant damage in sugar cane applications, Optimal Lines provides many additional benefits in farming situations where flexibility in GPS lines is needed to accommodate varied field conditions and equipment setups over an extended time period.

Controlled Traffic Farming (CTF) reduces soil compaction damage caused by heavy or repeated passes over the land. The negative consequences are well documented and include increased fuel usage, poor seedbeds, reduced yields and poor soil function in terms of water infiltration, drainage and greenhouse gas mitigation.

A CTF system confines machinery to the least possible areas of permanent traffic lanes. Without this control, machines can run randomly over the land, compacting as much as 75% of the area within one season and the entire area by the second season. Soils can take years to recover. A proper CTF system can reduce tracking to just 15% and it always occurs in the same place.

- **Create Optimal Lines “on the fly” with touchscreen icons**
- **Automatic detection of nearest lines**
- **Manually select a line to steer from by simply touching the screen to “jump” to the next or previous line**
- **Works like having multiple identical curves in one field without having to load new lines**
- **Lines can be easily loaded from shape files**

Coupled with Topcon RTK, Optimal Lines offers repeatable performance over years.

Crop Monitoring Technology

CropSpec™ crop canopy sensors offer just-in-time crop health management

The use of crop sensing technology in cereal and grain crops to measure nutrition needs is one of the fastest growing segments in precision farming.

Topcon CropSpec crop canopy sensors work with the X30 console to monitor in-field variability, treat on-the-go, or save data for future analysis and creation of prescription maps.

Based on the Topcon core competency of optics, CropSpec uses pulsing laser diodes to scan crop health and nutrition needs. The CropSpec units mount on the cabin roof out of harm's way, with less potential for damage while the high roof top mounting provides the largest sensor footprint in the industry. By scanning a larger percentage of area to be applied, more accuracy in application is attained.

CropSpec sensors measure plant reflectance to determine chlorophyll content, which correlates to nitrogen concentration in the leaf. This non-destructive, non-contact measurement method provides accurate, stable readings with repeatable values.

Two Operating Modes

Scanning for Read and Record of Data

Allows user to collect and store data for offline analysis and creation of prescriptions.

User Defined Variable Rate Control

Hi/Low basic mode – set high and low points then perform on-the-go application using field averaging.

Developed in cooperation with Yara International, a leading world supplier of crop nutrients.

- Reduce fertilizer costs by applying based only on crop need
- Create prescription maps, or prescribe and apply in a single pass
- 24/7 operation
- Cab-mounted sensors protected and out of harm's way
- Largest sensor footprint in the industry reads a larger percentage of the area to be applied
- Provides on-the-go averaging with user-determined target rates
- Views crops at a uniform angle to the crop rather than directly above to minimize the effects of shadowing, crop movement, etc.

MAGNET™
MOBILE AG NETWORK

MAGNET

Mobile AG Network File Transfer connects Field to Office for increased productivity

MAGNET is a web browser-based environment that simplifies managing field and office data in the cloud. MAGNET allows easy file transfer between SGIS and Topcon consoles using Horizon software.

MAGNET can be obtained through monthly or annual license subscriptions and can accept any number of users in a single account. Once a MAGNET Mobile Exchange Ag Application is set up, the user can then transfer data files from various vehicles to the cloud where it is accessible from the office or other machines.

MAGNET Mobile Ag Network file transfer brings easy access to all of the valuable data generated by Topcon precision ag solutions.

MAGNET Mobile Exchange for tablets via the cloud

Download to the X30 Console

- VRC prescription maps in Shapefile format
- VRC prescription maps in ISO XML format

Upload from the X30 Console

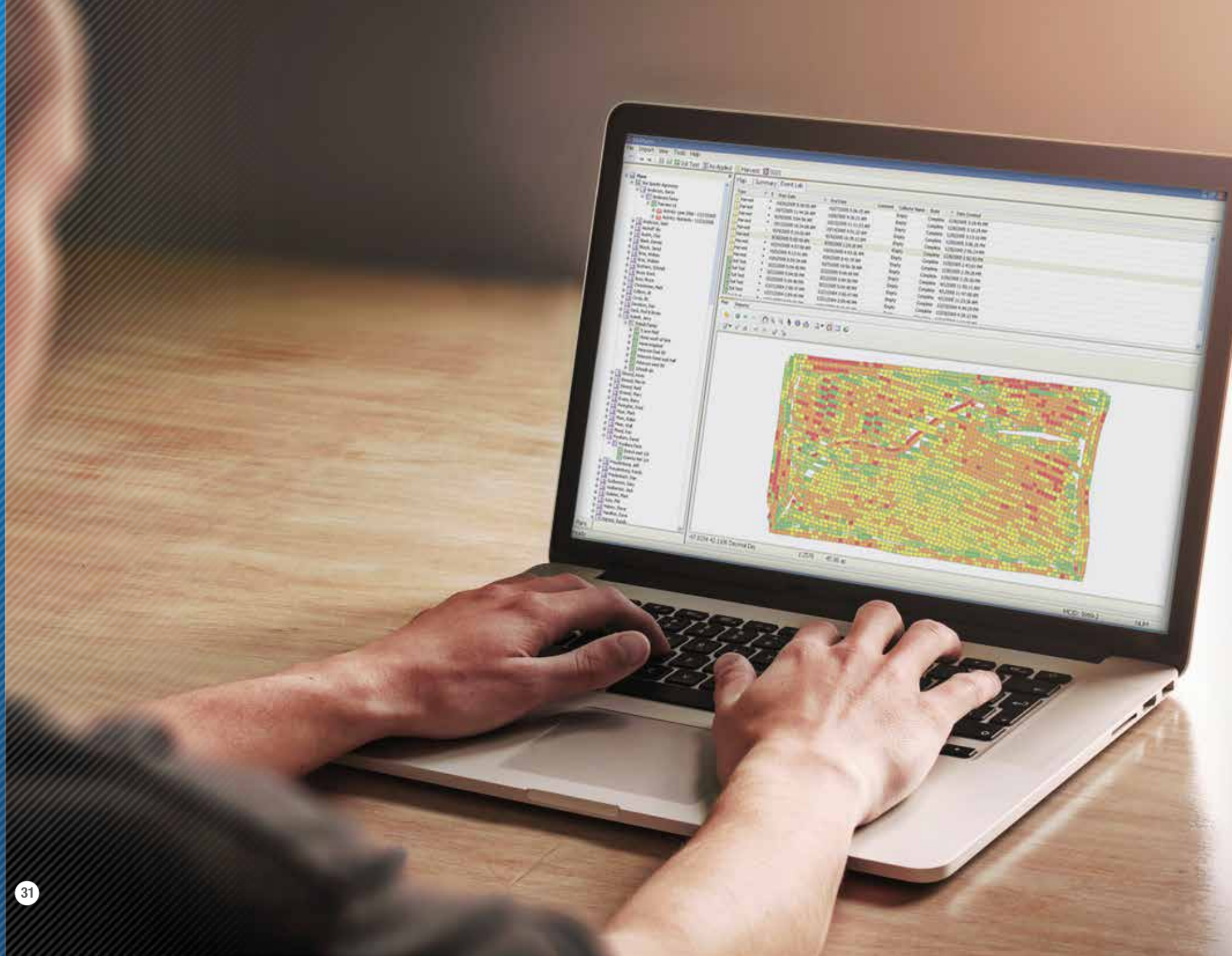
- As-applied maps in Shapefile format
- Coverage Shapefiles
- Boundary Shapefiles
- PDF job reports
- “Per point data” files
- ISO XML files

TopNET *live*

GNSS Reference Station Network

TopNET *live* is a subscription based, real-time GNSS reference network delivering high quality GNSS correction data for agricultural applications throughout North America.

TopNET *live* networks deliver consistent, high precision solutions to rovers used in a variety of agricultural applications such as planting, fertilizing, chemical application and land leveling. Using a modeled solution (NET-RTK), rovers within the network coverage area benefit from fast, reliable initializations and maintain high quality positioning solutions at all times.



Data Management Solutions

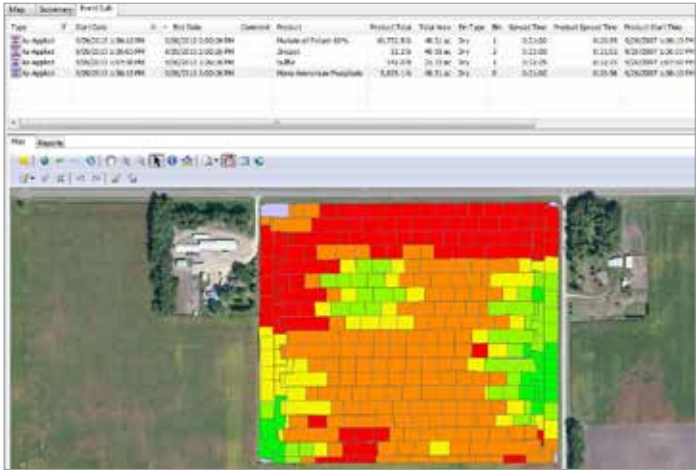
A strong precision heritage

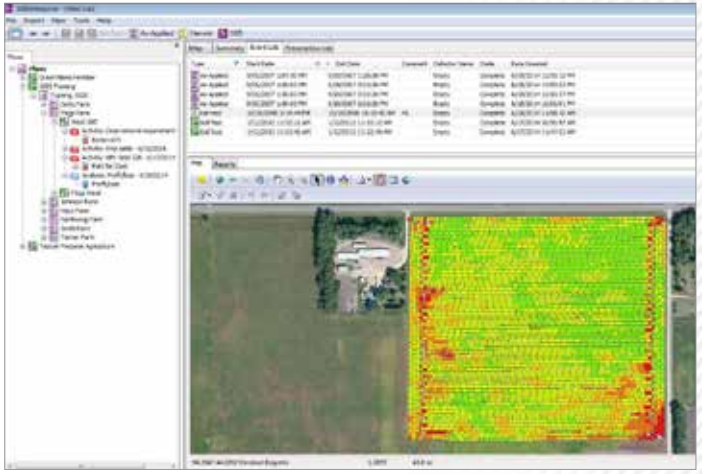
For over 20 years, SGIS agronomy software had been sold almost exclusively in the ag retailer market where it became a key technology component of many successful precision farming service businesses.

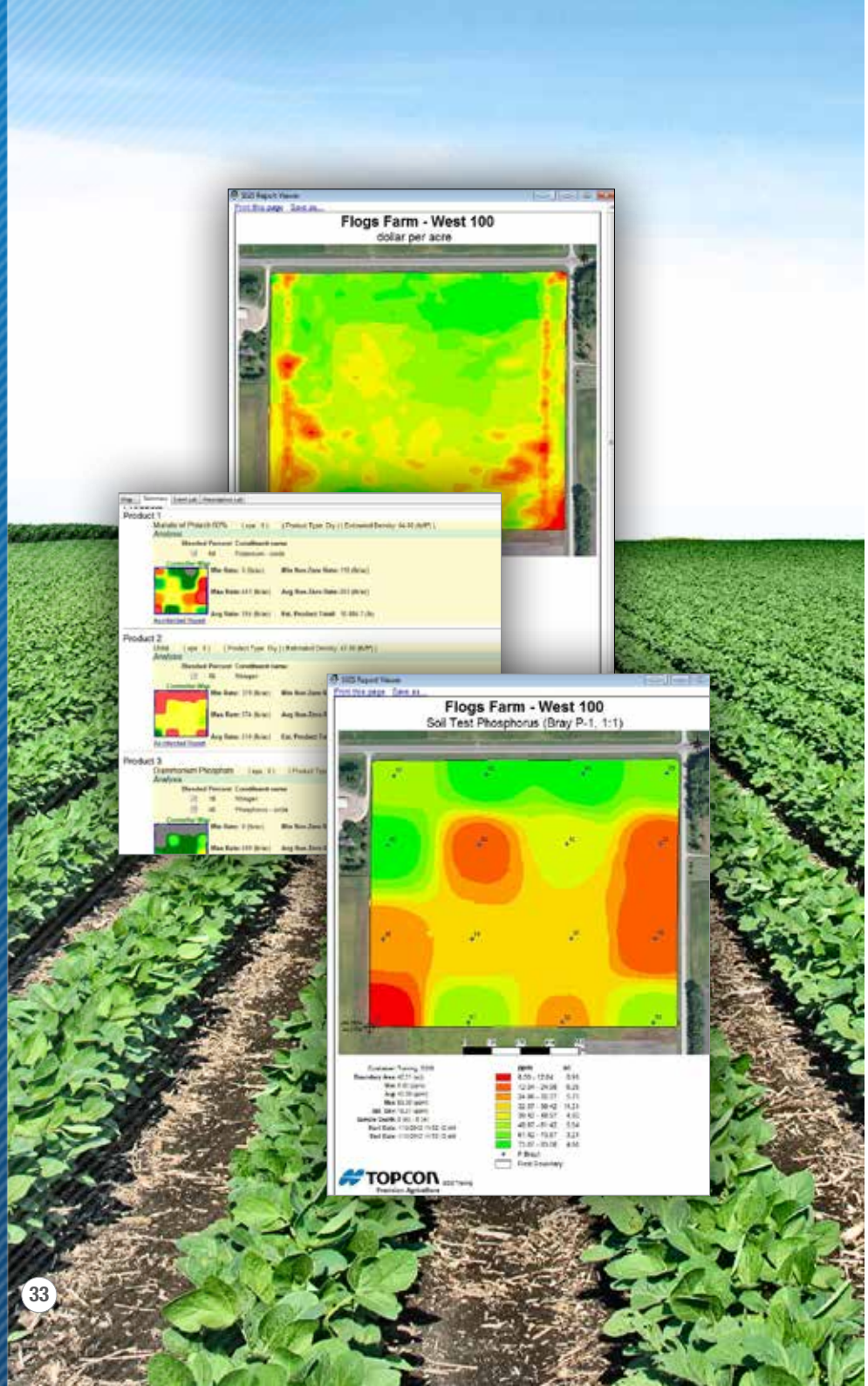
As the “engine” behind your precision agriculture effort, SGIS delivers insight, puts you in control and impacts profitability. SGIS converts yield, soil sample and other agricultural data into geo-referenced maps that professionals can use to better understand crop performance and make more accurate application plans.

Users can efficiently and effectively offer multi-product and variable-rate plans that are customized to growers’ local conditions and requirements. SGIS software guides agronomic and economic recommendations—and more profitable crop production decisions.

Topcon SGIS data management solutions now include SGISfarm, for farm owners and operators, SGISpro for the professional agronomist, and now SGISenterprise which provides precision data management in multi-user environments.







SGISfarm

Simple-to-use data management for farm owners and operators

SGISfarm is built around the industry-leading Esri ArcGIS Engine 10 – the same engine used by local FSA and government offices. SGISfarm features an easy-to-use process to streamline the creation of flat and variable rate maps without sacrificing quality or accuracy. This process is focused on proven recommendation methods that are pre-packaged in readily available templates to eliminate the complex process of equation creation. SGISfarm works well alone, or as companion software to SGISpro.

SGISfarm imports and manages all types of data that are critical to a successful farming operation. Data types include: soil test, yield and as-applied data as well as crop sensor, soils and topography information. SGISfarm supports an extensive list of third party application, yield and seeder controllers; and makes it easy to either create application maps for, or import data from those systems. Once data is brought into SGISfarm, fully editable reports are automatically generated for quick and simple viewing of each input associated with that information. Moisture, yield mass, yield volume and crop density are a few examples.

SGISfarm's open architecture design is compliant with the current ISO standard. The integration with Bing™ Maps also allows access to worldwide, high-resolution color imagery and address search. This imagery can be saved and shown on all reports and maps if desired.

SGISpro

Data management and analysis for the professional agronomist

With over 20 years of proven, in-field experience coupled with the industy-leading Esri ArcGIS Engine 10, SGISpro is tailor-made for the co-op, agronomist or technology-minded farmer. SGISpro builds on the functionality of SGISfarm by adding in many powerful analysis tools that can be used to highlight the relationships between yields, soil testing information and application data. SGISpro users can efficiently and effectively offer multi-product and VRT plans customized to suit a grower's exact requirements and demands.

SGISpro features an industry-exclusive process for tailoring variable rate applications to include local requirements as well as customers' specific requests. This feature sets SGIS apart as the most powerful agronomic tool available to allow users to utilize their knowledge of local conditions and preferred practices to guide the development and implementation of accurate variable rate applications.

SGISpro is designed around maximizing efficiency in the office as well as in the field. User-definable templates allow for ease of importing soil test, yield and as-applied data to make the most informed decisions possible to maximize the profitability of a farming operation.

SGISpro allows users to easily create flat or variable rate application plans, utilizing any number of variables, for one or multiple products. Also featured are numerous batch processes for report/book creation, multiple map/machine type creation and field boundary importing tools. SGISpro is the quintessential product for the agronomist or technological-minded farmer looking to maximize efficiency while limiting down-time in the office.

SGISenterprise

Topcon's new entry into the multi-user data management environment

SGISenterprise allows multiple users to access the same database to make collaboration and sharing of data much faster and more intuitive across multiple workstations or locations.

What sets Topcon apart is that we provide users the opportunity to maintain full control and access to their data – it is not uploaded to a server in some remote location but stored on a server at the customer's location.

SGISenterprise opens up a new range of possibilities for interconnectedness between the farmer and the agronomist. SGISpro and SGISfarm users can collaborate and access the same database. This means that a Pro user can manage multiple Farm users and access all of their data. At the same time, producers can be limited to only viewing the data that is pertinent to their operation.

This allows data sharing and decision making to happen at a much faster and more streamlined rate to maximize the time spent in the office and get the full benefits of a precision farming operation come harvest time.

Water Conservation and Landforming

Proven field design and landforming with GNSS accuracy

Topcon offers dual-constellation (GPS + GLONASS) satellite reception for maximum accuracy with single or dual scraper control, plus the ability to grade more than 12,000 acres in a single setup. The GNSS system offers 24/7 operation and can work in dusty conditions that would significantly hamper laser use.

The Topcon GNSS solution allows the operator to survey, create cut/fill maps and start grading without ever leaving the cab. Best-fit calculations reduce yardage up to 10% versus traditional hand-calculated laser surveys.

Topcon X30 offers high-accuracy landforming and high-accuracy autosteering simultaneous on a single console.

World's best landleveling with world's best autosteering: Topcon X30 console, using Horizon software, can now be teamed with the AGI-4 Receiver/ Steering Controller to bring the best of both worlds in one solution.

MC-R3 contains GPS receivers, radios and controllers in one rugged unit. Features Ethernet port, power processing capability and additional valve drivers for the widest array of machine compatibility.

MC-A1 is a precision dual-frequency, dual-constellation antenna featuring micro-center technology plus integrated ground plane to reduce multipath errors.

HiPer V mobile base station integrates receiver, radio, antennas and a rechargeable battery to function as a mobile, cable-free base station, fixed base or survey rover.

CR-G5 Dome Antenna –exceptional performance in more demanding multipath-prone environments.

X30

CR-G5

HiPer V

MC-R3

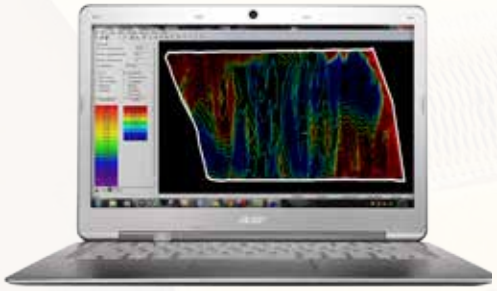
MC-A1

AGForm-3D Software with Variable Slope PWCS

AGForm-3D state-of-the-art survey and design software coupled with HiPer V receiver/base station is used for independent survey of fields and creating flat, single and dual slopes, or multi-slopes without leaving the vehicle cab.

AGForm-3D includes the Topcon Variable Slope PWCS field design module at no additional cost. Topcon PWCS or Piecewise Continuous Slope has revolutionized land leveling by significantly reducing the volume of material moved and by keeping design surfaces closer to the original terrain than older multi-planar methods.

AGForm-3D offers complete control with the ability to survey, design and create plots and reports in a single program. And, with no per-acre fees, it's a one-time investment that generates rewards immediately.



Laser Land Leveling

Topcon laser systems offer time and field proven technology, with single or dual scraper control and flexible options to suit your leveling needs from basic manual indicate to fully automatic machine control.

System 5

Dual Control 9164 – Elevation control for two scrapers, or slope and elevation on a single scraper. Combine with the TM-1 survey masts or use rigid masts for economy.

Single Control 9256 – Combine with the TM-1 mast and LS-B110 laser receiver for automatic control and survey capabilities on a single scraper. Survey function adds, then averages elevations. Perfect for field leveling or maintaining roads or ditch pads.

9164

9256

RL-200 Series Single and Dual Slope Lasers

Topcon RL-200 Series lasers set new standards for simplicity and accuracy. Rugged, lightweight, and compact – an amazing laser for an affordable price.

Choose from two models: RL-200 1S single slope, or RL-200 2S dual slope. The RL-200 1S provides single slopes from -5% up to +25% and the RL-200 2S provides dual slopes up to +/- 10% in the X axis, or up to an industry-leading -5 to +25% in the Y axis.

Large, high-contrast, graphical display clearly shows all functions at a glance. Revolutionary encoding system provides the highest grade repeatability (7 arc seconds) of any laser.

RL-200 1S

LS-B110 Laser Receiver

Visual grade indicators for manual control or automatic mode for cutting-edge hydraulic elevation control. Features 360° reception, bright multi-color grade indicators, adjustable on-grade accuracy, waterproof, dustproof, alkaline or rechargeable battery, and plumb indicator.

LS-B110

TM-1 Electric Mast

The TM-1 mounts on the scraper mainframe where it raises and lowers the laser receiver for quick, accurate surveys.

TM-1

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